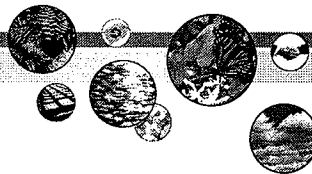




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## Keeping the Interest Flowing

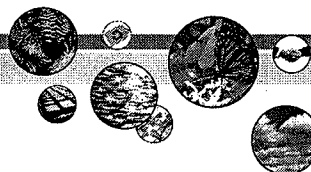
or  
What's New in Wellhead  
Protection in Indiana



September 23, 2008



Environmental Management



## Safe Drinking Water Act (SDWA)

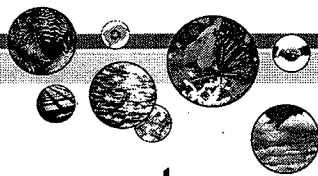
- Passed 1974
- Amended 1986
- Amended 1996





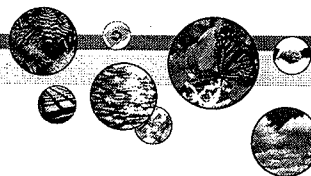
## Indiana's Wellhead Protection Program

- Adopted WHP Rules in 1997
- Required 3,000 ft Fixed Radii  
or 5 yr Time of Travel  
Modeled Delineations
- Required Phase I Plans
- Required Phase II Plans



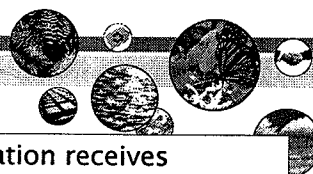
## Phase I Plan Requirements

1. Establish Local Planning Teams
2. Establish Fixed or Modeled Delineations
3. Inventory Potential Sources of Contamination
4. Develop Management Plans – Regulatory  
and/or Educational
5. Update Contingency Plans



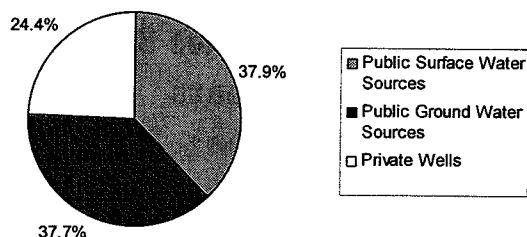
## Phase II Plan Requirements

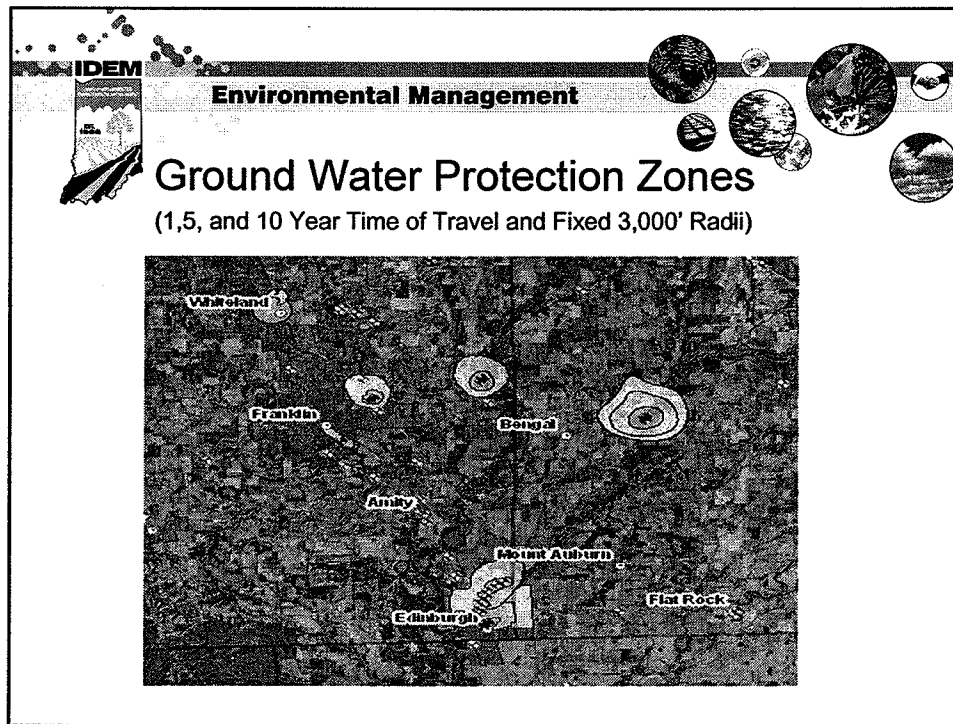
1. Update Delineations
2. Update Source Inventories
3. Implement Management Plans
4. Update Contingency Plans
5. Report to IDEM



More than HALF of Indiana's population receives their drinking water from Ground Water

Sources of Drinking Water in Indiana





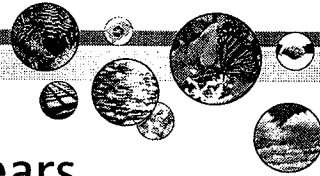
**IDEM**  
**Environmental Management**

## Staggered Due Dates

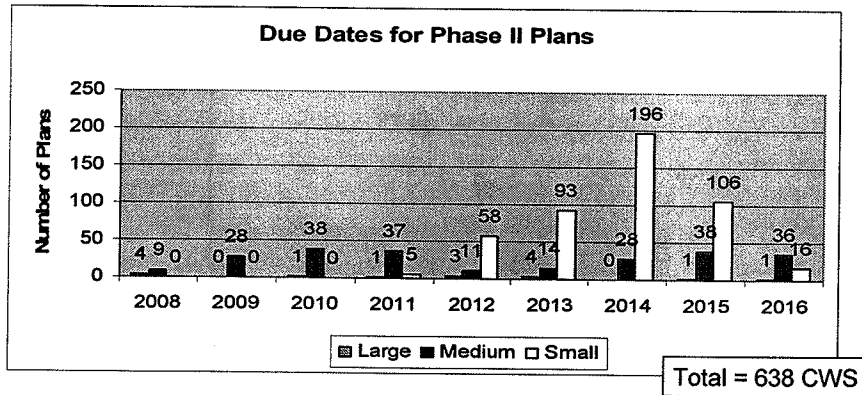
- Large Communities > 50,000 pop.  
report back in 5 years
- Medium Communities 3,300 – 50,000 pop.  
report back in 7 years
- Small Communities < 3,300 pop.  
report back in 10 years



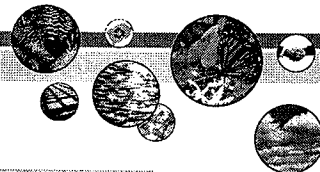
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### The Next Few Years



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### Example Phase II Activities

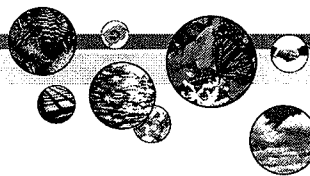
- Update Delineations
  - New PWS Wells?
  - New High Capacity Wells?
  - Closed Wells?
  - Changes in Pumping?
  - Changes in Demand?
  - Changes in Topography



(i.e., construction of impervious surfaces)



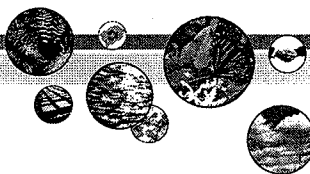
## Environmental Management



### Sentry Wells Provide Early Warnings



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### Example Phase II Activities

- Update Inventory of Potential Sources:
  - Changes in Landuse
  - Changes in Ownership
  - Changes in Status - Prioritize
  - New and Closed Sites
  - Cleanup Status
  - Install and sample Monitoring Wells



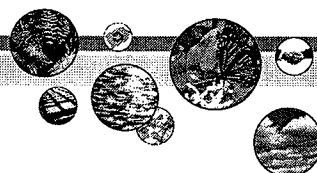
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### Meetings with Sites Investigation, LUST and VRP Sections of IDEM




## Environmental Management



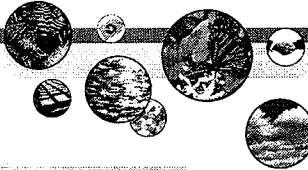
### Example Phase II Activities

- Review Emergency Management Plans
  - Contact Lists
  - Training
  - Drills







Environmental Management



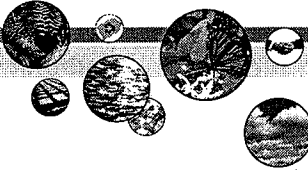
Example Phase II Activities

- Education and Outreach
  - Brochures
  - Bill Stuffers
  - Signs
  - Water Conservation Days
  - Water Festivals
  - World Water Week
  - Education of Residents/ Business
  - Ag Days

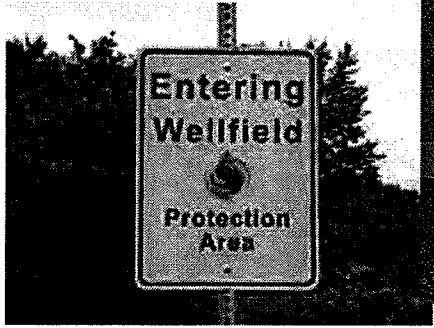





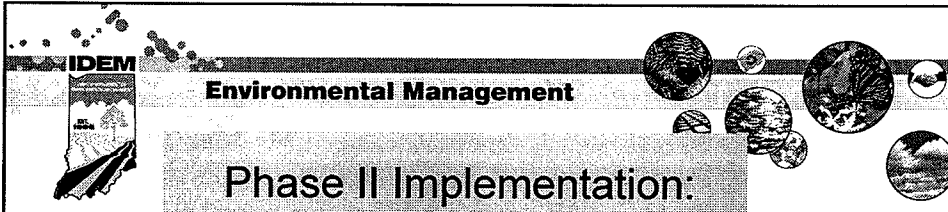
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Road Signs Raise Awareness

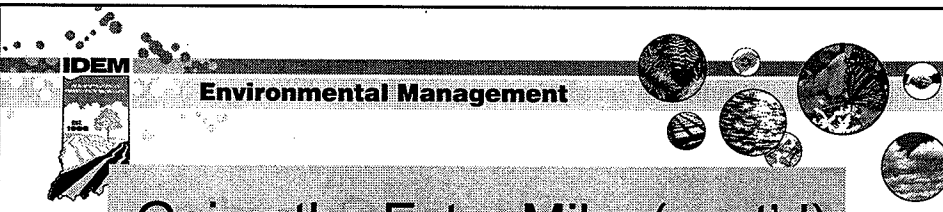




**Environmental Management**

### Phase II Implementation: Going the Extra Mile

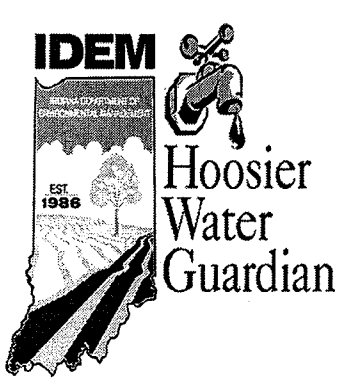
- Review Sanitary Set-back (ownership or lease agreements)
- Seal Abandoned Wells *"in the works"*
  - IDEM Grants available to small Communities
- Local Ordinances
- Monitor Transportation Routes
- Monitor Cleanups



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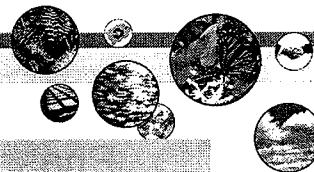
### Going the Extra Mile (cont'd)

- Explore New Strategies
- Hoosier Water Guardian Program
- CLEAN Community Challenge
- Groundwater Guardian Program
- Local Earth Day Celebrations
- Spill Response Drills
- Conservation Easements
- Rain Garden Demos





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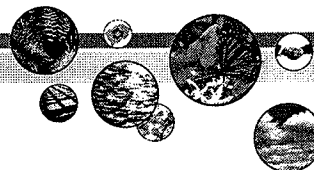


### Going the Extra Mile (cont'd)

- Stay Actively Involved
  - Hoosier Water Guardian
  - Groundwater Guardian
  - Green Site
- Share Success Stories
- Share Lessons Learned



## Environmental Management



### Become a Water Guardian

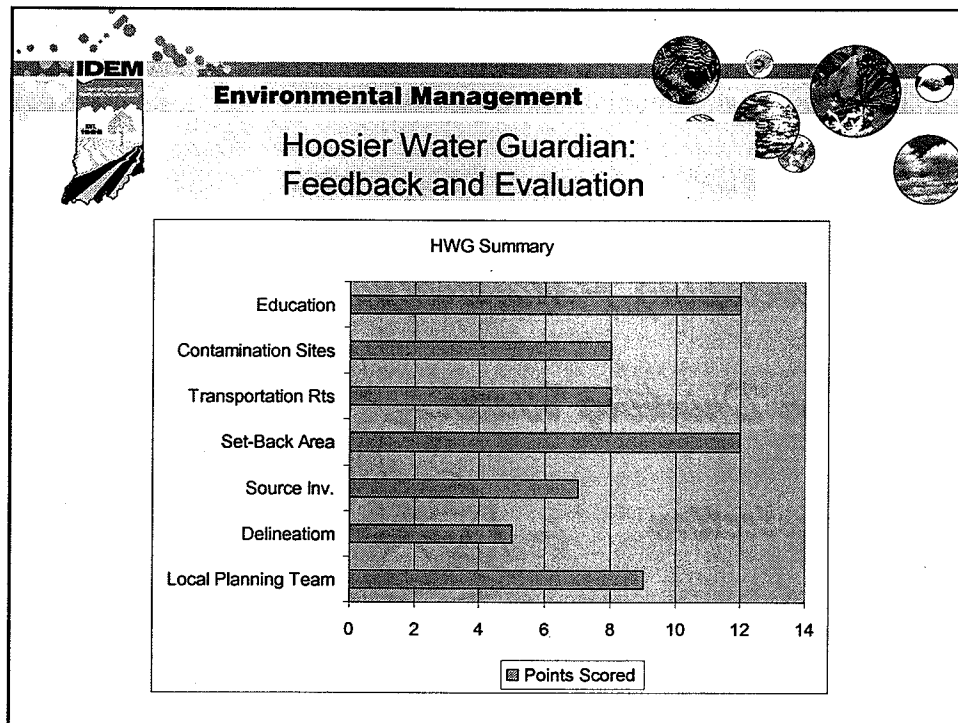


**Hoosier  
Water  
Guardian**



<http://www.in.gov/idem/4296.htm>

<http://groundwater.org/gg/gg.html>



**IDEM** **Environmental Management**

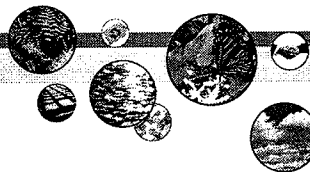
## Hoosier Water Guardian: Feedback and Recognition

Total Score	Interpretation	Award
31-59	Above Average	Hoosier Water Guardian
60-89	Highly Effective	With Distinction
90-120	Extraordinary	With Outstanding Commitment

<http://www.in.gov/idem/4296.htm>



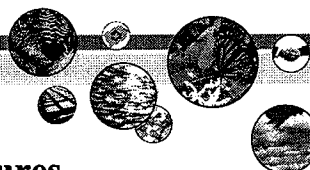
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### *Developing Partnerships For Drinking Water Protection*



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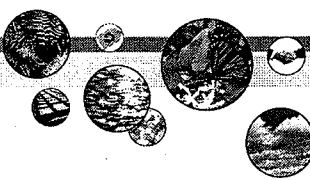


### **Six Minimum Control Measures for Municipal Separate Storm Sewer System (MS4) Operators**

- Public Education
- Public Involvement
- Illicit Discharge Control Program
- Erosion and Sediment Control Regs
- Pollution Prevention for Munic. Operations
- Post Construction for New Developments



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## Links to Storm Water (MS4) Plans

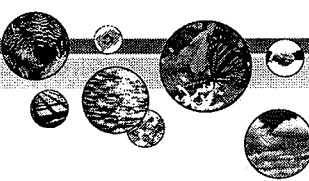
**Minimum  
Control  
Measures**



- Potential Pollutants Inventory
- Educational Programs
  - Storm drain stenciling
  - Signage
  - Ag Days
- Road Salt and Sand Handling
- Spills/Emergency Response
- Sealing Abandoned Wells and Class V Injection wells (ie. drains)
- Phosphorus Fertilizer Issues




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## More Links to Storm Water Plans

- Failing Septic Systems
- Secondary Containment
- Infiltration Practices
- Educational Strategies
- Web Linkages (cross reference message)
- Ordinances
- Recognition in HWG or GG awards




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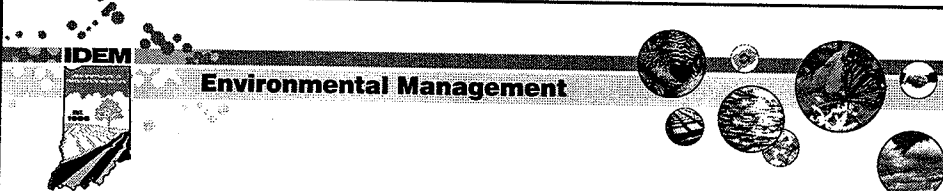


### Links to Other State Programs

- Solid Waste
  - Household Hazardous Waste
  - Recycling
- Site Investigations
  - Voluntary Remediation Program
  - LUSTs
  - Cleanups
- WQ Monitoring
  - Raw Water
  - State GW Monitoring Network
  - Statewide Monitoring Council





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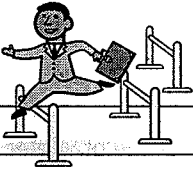
### More Links to Other State Programs

- Watershed Planning
  - Special Initiatives
  - Numbers & Types of BMPS
- Office of Pollution Prevention
  - CLEAN Community
  - Technical Assistance
- Water Conservation Programs
  - CREP
  - EQIP






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## Obstacles

- Staggered Phase II reporting until 2014
- Lack of State and Local Resources (\$ and staff)
- Lack of Local Jurisdiction/need for partnerships
- Lack of knowledge about other local groups and their activities
- “Slow” Coordination between local/state agencies and/or groups
- Lack of incentives (\$ and “job well done!”)...



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## Successes !

- 3 Hoosier Water Guardian Awards
- 1 GG Green Site
- More Quarterly LPT meetings
- Coordination with MS4 projects
- Collaboration at County Levels
- Coordination within IDEM
- More Road Signs going up
- Multiple Educational Events
- On the way to securing Grants for Sealing Abandoned Wells (Spring '09)
- Observation that general awareness has been raised through questions and incoming calls to the agency



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## Indiana Department of Environmental Management

Office of Water Quality  
Drinking Water Branch  
800-451-6027

James Sullivan  
317-308-3388  
Connie Cousins-Leatherman  
317-308-3330  
<http://www.in.gov/idem/4142.htm>